



Using Google Earth to Visualize Bibliographic Information

2010 Intelligence Community Library Consortium Meeting

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Douglas J. Joubert, NIH Library

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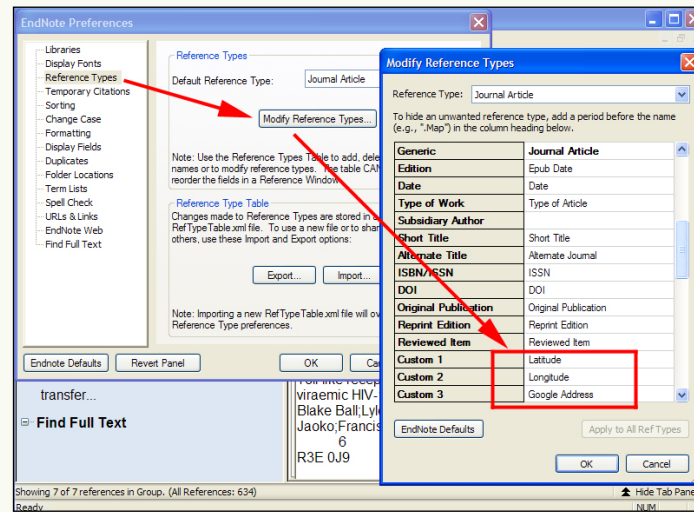
DIVISION OF LIBRARY SERVICES
OFFICE OF RESEARCH SERVICES
NATIONAL INSTITUTES OF HEALTH
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Introduction Project Description

- ✦ Project for an NIH researcher interested in using bibliographic and GIS information to map the locations of HIV therapy research
- ✦ Bibliographic information contained in an Endnote® library was enhanced by adding the latitude and longitude of the primary authors' institution
- ✦ Built in Google™ Earth, ported to multiple sources

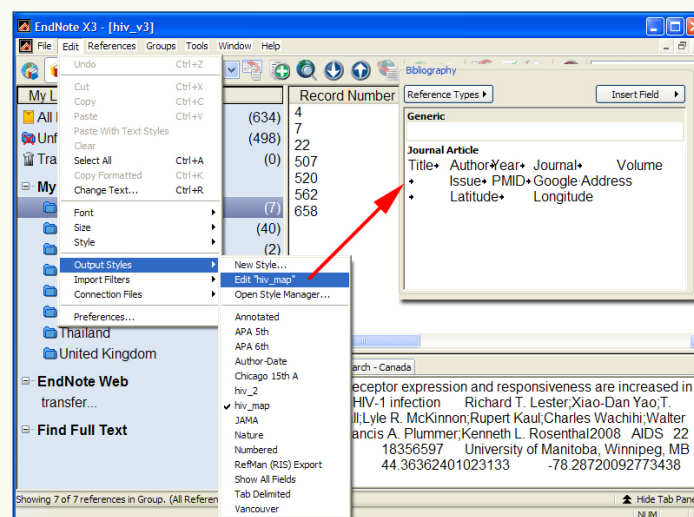
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Materials and Methods Endnote



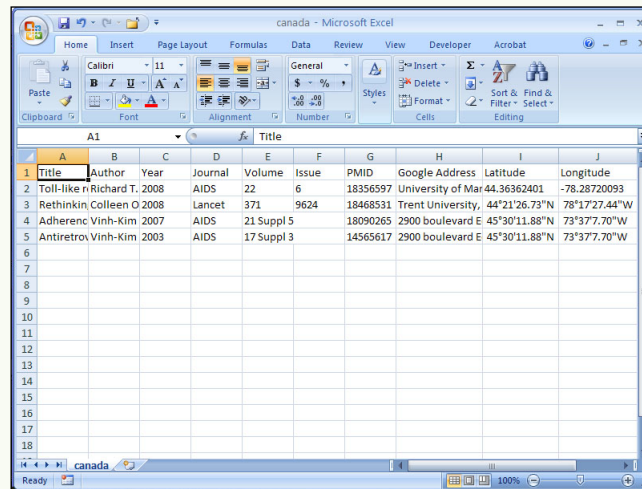
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Materials and Methods Endnote



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Materials and Methods Endnote>Excel

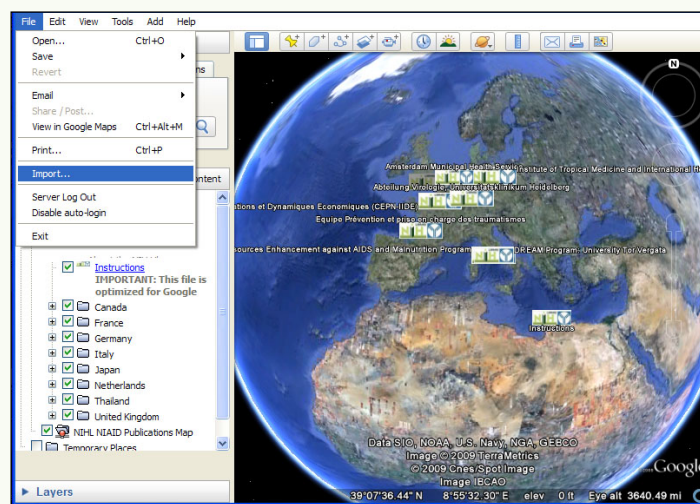


The screenshot shows a Microsoft Excel spreadsheet with a table of bibliographic data. The table has columns for Title, Author, Year, Journal, Volume, Issue, PMID, Google Address, Latitude, and Longitude. The data is organized into rows, with the first row being the header and subsequent rows containing specific bibliographic entries.

	A	B	C	D	E	F	G	H	I	J
	Title	Author	Year	Journal	Volume	Issue	PMID	Google Address	Latitude	Longitude
1										
2	Toll-like r	Richard T.	2008	AIDS	22	6	18356597	University of Mar	44.36362401	-78.28720093
3	Rethinkin	Colleen O	2008	Lancet	371	9624	18468531	Trent University,	44°21'26.73"N	78°17'27.44"W
4	Adherenc	Vinh-Kim	2007	AIDS	21 Suppl	5	18090265	2900 boulevard E	45°30'11.88"N	73°37'7.70"W
5	Antiretro	Vinh-Kim	2003	AIDS	17 Suppl	3	14565617	2900 boulevard E	45°30'11.88"N	73°37'7.70"W

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Materials and Methods Google Earth>Data Import



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Google Earth>Data Import

Data Import Wizard

This step allows you to specify the field delimiter in your text file.

Field Type

☐ Delimited ☐ Fixed width

Delimited

Select the delimiter that separates each field. If there can be more than one delimiter between two fields (such as spaces), check the "treat consecutive delimiters as one" option. You can also provide your own custom delimiter by checking the "other" option.

☐ Space ☒ Treat consecutive delimiters as one
☐ Tab
☐ Comma
☐ Other

Fixed Width

Column width

This is a preview of the data in your dataset

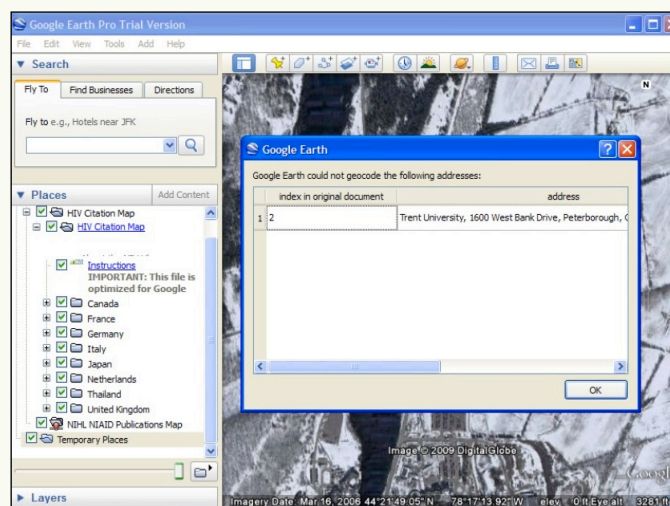
	Address	Title	Author	Year	Journal	Volume	Issue	Pp
1	University of Manitoba, Winnipeg	Toll-like receptor expression and ...	Richard T. Lester;Xiao-Dan ...	2008	AIDS	22	6	1835659
2	Trent University, 1600 West Bank ...	Reframing (Product) RED	Colleen O'Manique;Ronald ...	2008	Lancet	371	9624	1846853
3	2900 boulevard Edouard-Montpetit	Adherence as therapeutic outcome	Vinh-Kim Nguyen;Cynthia ...	2007	AIDS	21 Suppl 5	18090265	
4	2900 boulevard Edouard-Montpetit	Antiretroviral use in Ouagadougou...	Vinh-Kim Nguyen;Troy Gre...	2003	AIDS	17 Suppl 3	14565617	

Help Next > Finish Cancel

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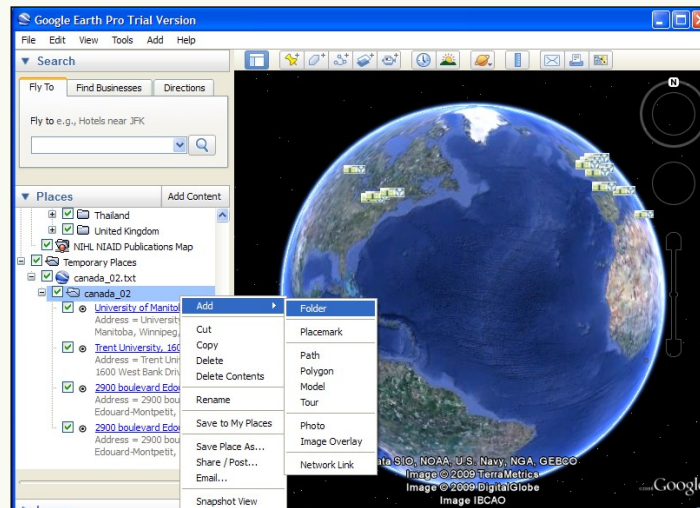
Google Earth>Data Import



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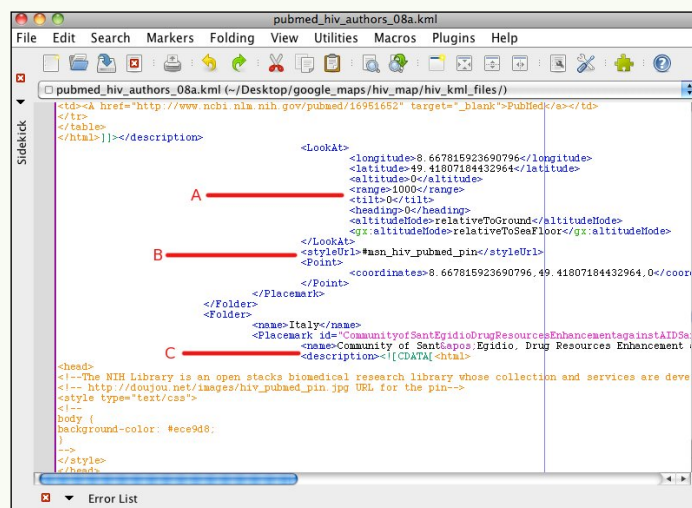
Google Earth>Folders



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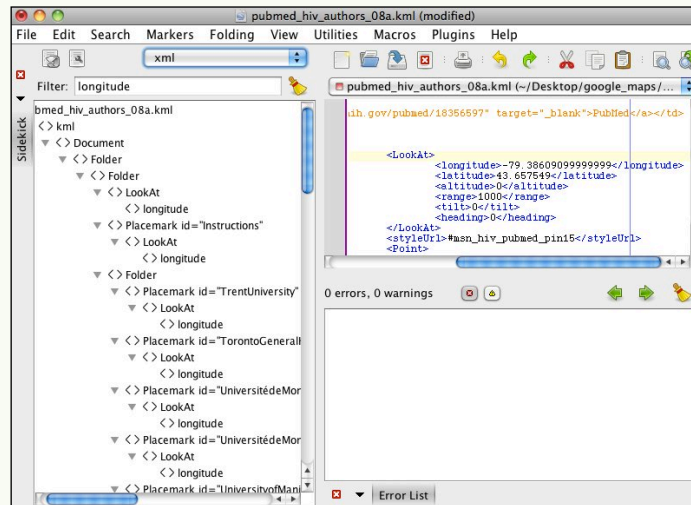
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KML



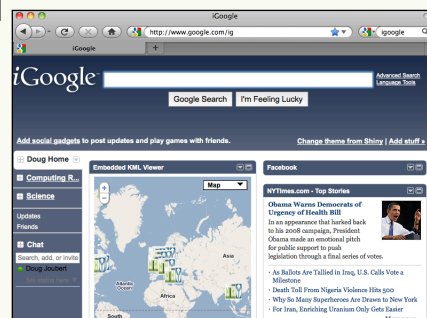
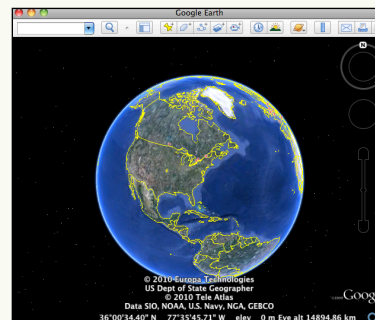
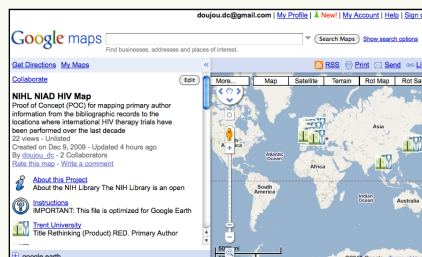
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Materials and Methods jEdit



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KML to...



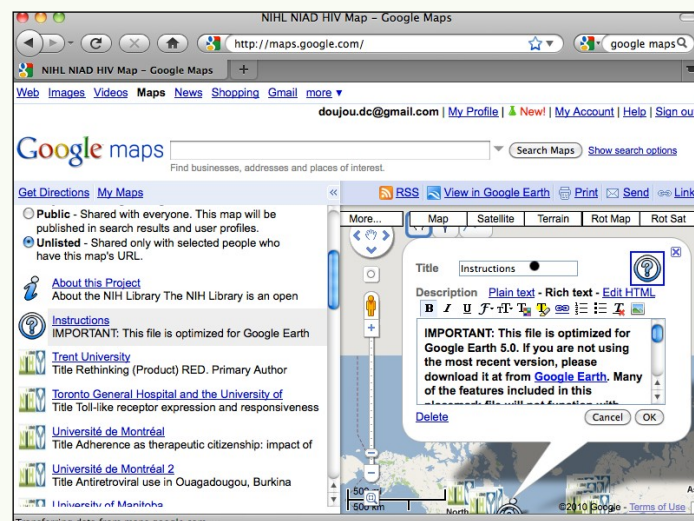
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Results Google Maps



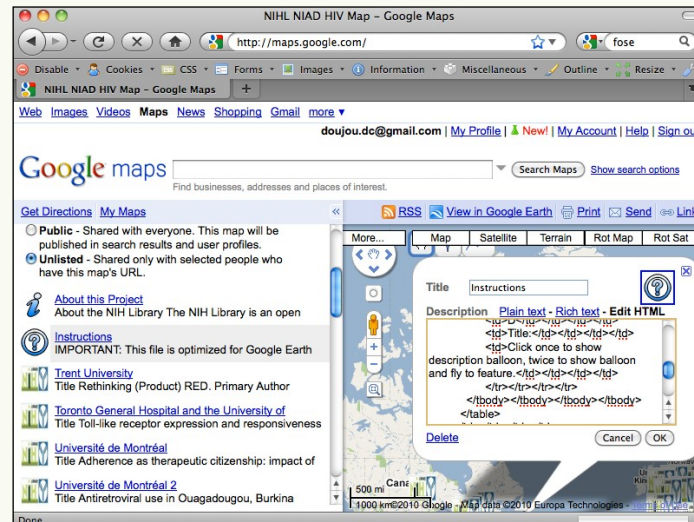
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Results Google Maps



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Results Google Maps



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Results Google Maps...caveats

- ✦ Importing from Google Earth/KML...what you see is not what you get
- ✦ 10 KML elements supported by Google Maps

Placemarks	Icons	Folders	Descriptive HTML	KMZ
Polygons and Polylines	Polygons Styles	Network Link (data linking)	Regions inside network links (new)	Ground overlays

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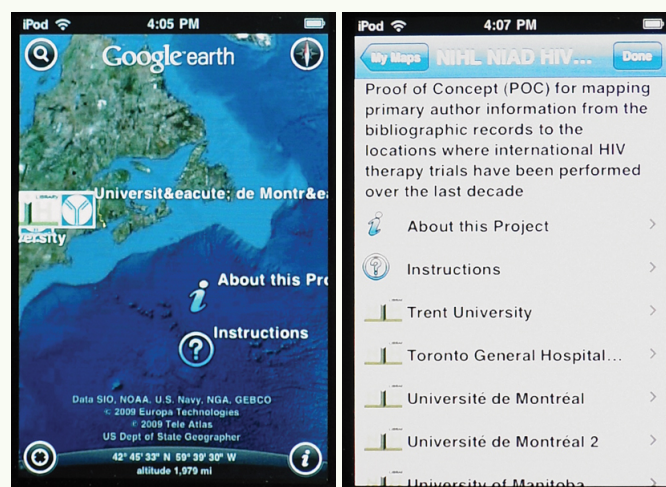
Results iPhone / iPod Touch



- ✦ On the iPhone U/I via the Google Earth App
- ✦ Non-native maps—simply linking to a Google Map
- ✦ Google Maps also supported on:
 - ✦ Android
 - ✦ BlackBerry
 - ✦ Nokia S60
 - ✦ Windows

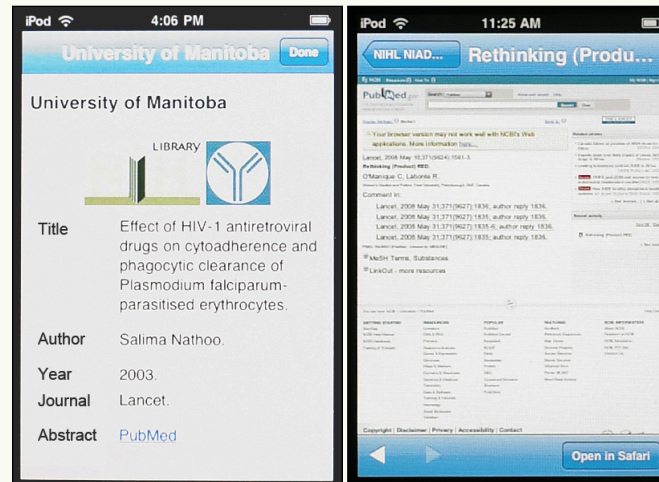
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Results iPhone / iPod Touch



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Results iPhone / iPod Touch



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Data Visualization – AuthorMapper

- ✦ Springer
journal collection
- ✦ BioMed Central
60,000+ articles
- ✦ AuthorMap
widgets
facilitate embedding



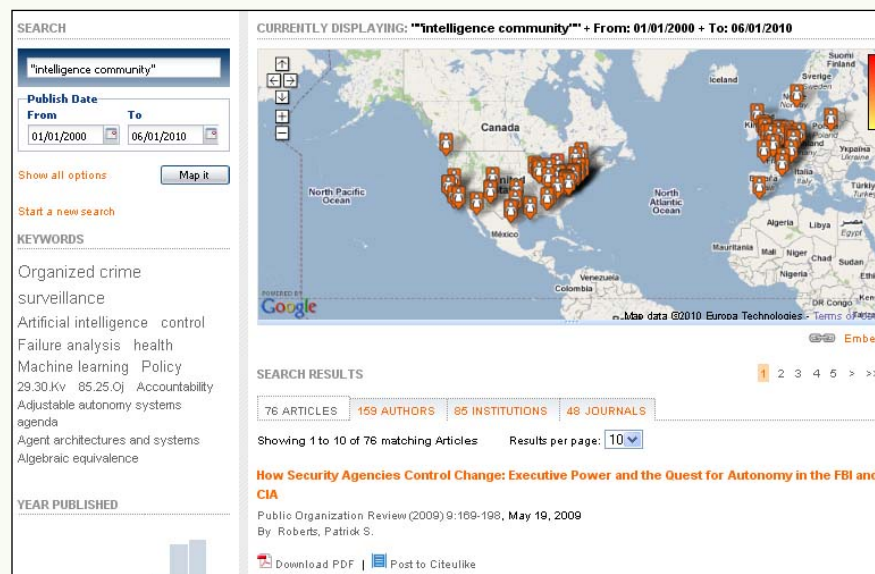
<http://www.authormapper.com/>

AuthorMapper – an Analytical Tool

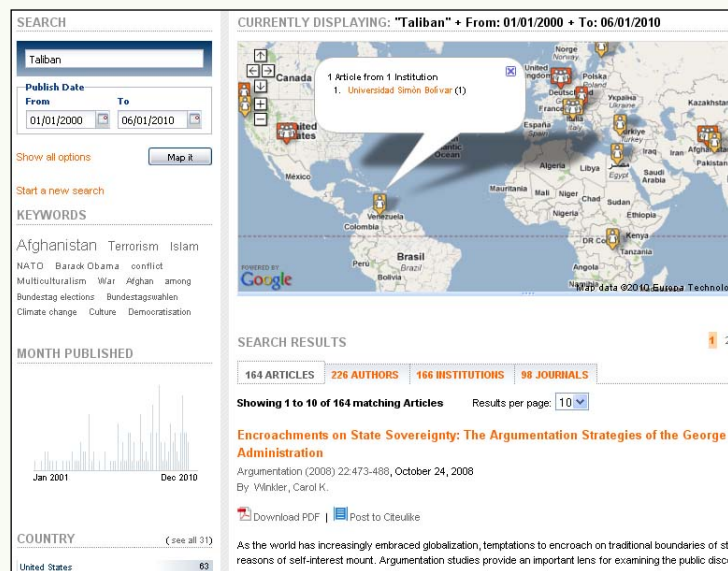


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AuthorMapper – Intelligence Gathering



AuthorMapper – Bibliographic Leads



Conclusions

- ✦ Visual demonstration of combined bibliographic and geographical data is compelling; tells a quick story
- ✦ Cost in time and tools increases with project complexity
- ✦ Automatic geocoding improves efficiency (GEP = \$)
- ✦ Data enhancement/visual display is nearly ubiquitous

Contact Us

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<http://www.slideshare.net/doujou.DC/2010-intelligence-community-library-consortium-meeting>



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